



**UTAH DIVISION OF WILDLIFE RESOURCES
LOA HATCHERY
WASTE STATION CLARIFIER DESIGN - 2004**

**State of Utah
Division of Facilities Construction & Management
DFCM Project No: 04218520**

**ADDENDUM #1
March 1, 2005**

PLANHOLDER:

This Addendum #1 shall become part of the plans, specifications and contract documents of the above referenced project, and all provisions of the contract shall apply hereto.

Bidders shall acknowledge receipt of all addenda by number in the space provided in the bid documents.

Item #1

The excavation under the clarifier and the filter pad shall be modified from what is shown on the drawings. An additional 18" of native material shall be removed. This additional 18" of material shall be replaced with 6" minus drain rock placed over filter fabric.

The drain rock shall be well graded material, with a maximum particle size of 6 inches, with not more than 40 percent passing the No. 4 sieve, with 100 percent being retained on the No. 10 sieve, and without any deleterious material.

The filter fabric shall be MIRIFI 180/N or an approved equal with the following characteristics:

FILTER FABRIC CHARACTERISTICS

Grab Tensile Strength, ASTM D-4632	210 lb.
Elongation at Failure, ASTM D-4632	50%
Trapezoid Tear Strength, ASTM D-4533	75 lb.
Puncture Strength, ASTM D-4833	95 lb.
Mullen Burst Strength, ASTM D-3786	360 psi.
Permeability - k, ASTM D-4491	0.3 cm/sec.
Permittivity, ASTM D-4491	1.4 sec ⁻¹
Vertical Water Flow, ASTM D-4491	110 gpm/ft ²
Apparent Opening Size*, ASTM D-4751	0.210 mm

*Maximum Opening Size

Item #2

The plans call out to construct an access ramp into the clarifier (on the west side of the clarifier) with native material. This ramp shall be constructed from the 6" minus drain rock placed on filter fabric as specified above. Also, a 4" layer of UBC (as specified in Section 02105 of the Specifications) over a second layer of filter fabric shall be installed over the 6" drain rock. The embankments to the north, east and south of the clarifier shall remain as native material.

Item #3

All trenches shall be backfilled with imported granular fill as specified in Section 02105 of the Specifications.

Item #4

The contractor is responsible to dewater the site sufficiently to excavate, and place materials. This is not paid separately, but included with the individual items needing dewatering.

Item #5

It was discussed in the pre-bid meeting about connecting the 4" drain line coming off the filters to the existing 18" line rather than installing the 4" line all the way to the discharge structure.

The 4" pipe shall be installed as shown on the drawings and not connected into the existing 18" line.

Item #6

All day to day access to the site shall be made by the existing access road located north-east of the main hatchery building.

Any vehicles requiring access through the main hatchery entrance shall be disinfected prior to entering the site. The division can assist with this disinfection process at the site. Concrete trucks will only need to be disinfected once as long as it has not been anywhere but at the site and back to the batch plant.

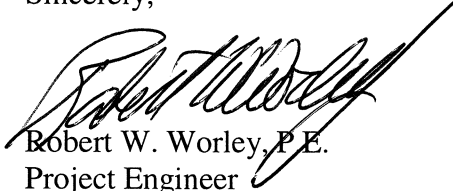
Item #8

A change has been made to Drawing E2. This drawing has been attached to this addendum. The changes include.

- Removing the 200 amp service entrance and replacing it with a 300 amp service.
- Upgrade the existing 60 amp breaker to a 100 amp breaker in the micro screen building.
- The micro screen building breaker box has been reconfigured in an effort to balance loads.

Prospective bidders should take note of these changes in the CONTRACT DOCUMENTS while preparing to submit their BIDS. This addendum shall be acknowledged on the BID documents in accordance with the CONTRACT DOCUMENTS by each BIDDER, and shall become part of the CONTRACT.

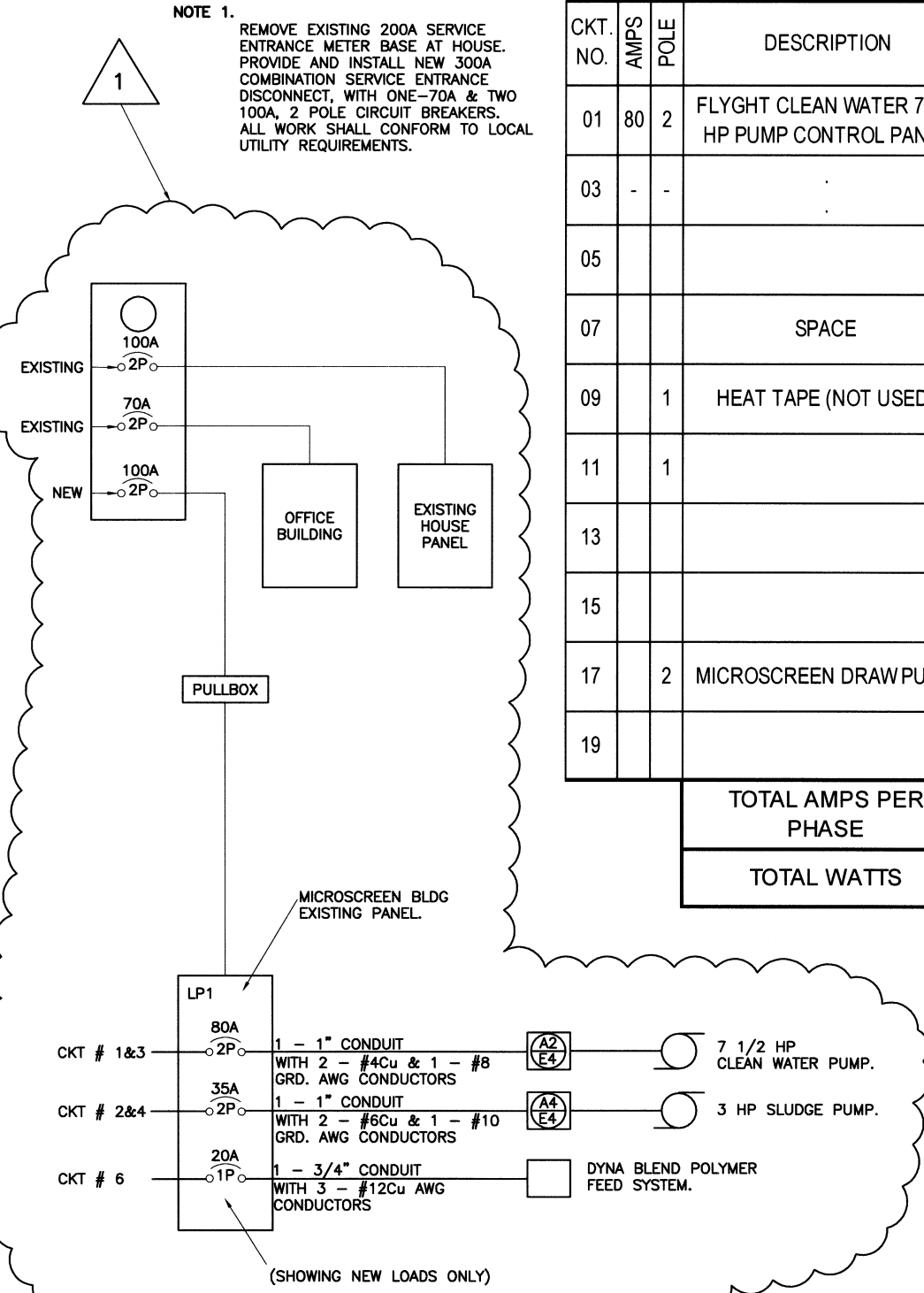
Sincerely,

A handwritten signature in black ink, appearing to read "Robert W. Worley", with a long, sweeping horizontal stroke extending to the right.

Robert W. Worley, P.E.
Project Engineer
Sunrise Engineering, Inc.

GENERAL ELECTRICAL REQUIREMENTS

1. THE COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODE ORDINANCES AND REGULATIONS. CONTRACTOR SHALL OBTAIN NECESSARY PERMITS AND INSPECTIONS REQUIRED BY THE GOVERNING AUTHORITIES. ALL WORK SHALL BE DONE IN A NEAT, WORKMANLIKE, FINISHED AND SAFE MANNER, ACCORDING TO THE LATEST PUBLISHED N.E.C.A. STANDARDS OF INSTALLATION, UNDER COMPETENT SUPERVISION. INSTALL GROUNDING AND ALL ELECTRICAL WORK AS REQUIRED BY THE NATIONAL ELECTRICAL CODE AS WELL AS ANY OTHER APPLICABLE CODES.
2. MATERIAL, EQUIPMENT AND INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 16000 PROJECT SPECIFICATIONS WHICH ARE PART OF THE CONTRACT DOCUMENTS FOR THIS PROJECT.
3. VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND ALL OTHER FACTORS WHICH MAY AFFECT THE EXECUTION OF THIS WORK. INCLUDE ALL RELATED COSTS IN THE INITIAL BID PROPOSAL.
4. ALL MATERIALS SHALL BE NEW AND OF THE BEST QUALITY, MANUFACTURED IN ACCORDANCE WITH NEMA, ANSI, U.L. OR OTHER APPLICABLE STANDARDS. THE USE OF MANUFACTURER'S NAMES, MODELS AND NUMBERS IS INTENDED TO ESTABLISH STYLE, QUALITY, APPEARANCE, USEFULNESS AND BID PRICE. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED IN WRITING AND REVIEWED BY THE ENGINEER BEFORE ORDERING.
5. PROTECT ALL ELECTRICAL MATERIAL AND EQUIPMENT INSTALLED UNDER THIS DIVISION AGAINST DAMAGE BY OTHER TRADES, WEATHER CONDITIONS OR ANY OTHER CAUSES. EQUIPMENT FOUND DAMAGED OR IN OTHER THAN NEW CONDITIONS WILL BE REJECTED AS DEFECTIVE.
6. LEAVE THE SITE CLEAN, REMOVE ALL DEBRIS, EMPTY CARTONS, TOOLS, CONDUIT, WIRE SCRAPS AND ALL MISCELLANEOUS SPARE EQUIPMENT AND MATERIALS USED IN THE WORK DURING CONSTRUCTION. ALL COMPONENTS SHALL BE FREE OF DUST, GRIT AND FOREIGN MATERIALS, LEFT AS NEW BEFORE FINAL ACCEPTANCE OF WORK.
7. ALL CONDUCTORS SHALL BE THHN/THWN COPPER, STRANDED RATED AT 600 VOLTS UNLESS OTHERWISE NOTED. ALUMINUM WIRE WILL NOT BE ALLOWED.
8. ALL UNDERGROUND CONDUIT TO BE SCHEDULE 40 PVC. MINIMUM DEPTH 30", MINIMUM SIZE 3/4". ALL UNDERGROUND ELBOWS SHALL BE RIGID LONG SWEEP WRAPPED WITH 3M-50 10 MIL PIPE WRAP OR APPROVED EQUAL.
9. ALL EXPOSED CONDUIT SHALL BE IMC OR RIGID STEEL CONDUIT, WITH A MINIMUM SIZE OF 3/4".
10. ALL SAFETY SWITCHES AND OTHER DISTRIBUTION AND CONTROL ELECTRICAL EQUIPMENT SHALL BE RATED FOR HEAVY DUTY SERVICE.
11. ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE GROUNDED BODY TYPE DEVICES.
12. THE CONTRACTOR SHALL INSTALL ALL INSTRUMENTS AND CONTROLS, INCLUDING HVAC AND CONTROL PANELS. THE CONTRACTOR SHALL OBTAIN AND REVIEW ALL INSTRUMENT, CONTROL AND HVAC DRAWINGS FOR TOTAL SCOPE OF WORK.
13. ALL PANELS, DISCONNECTS AND SWITCH GEAR ON THE OUTSIDE OF THE BUILDING SHALL BE NEMA 3R TYPE ENCLOSURES UNLESS OTHERWISE NOTED. THE CT CABINET AND METER BASE SHALL BE OUTSIDE THE BUILDING.
14. SURGE SUPPRESSER SHALL BE SIZED FOR 160KA AMPS UNLESS OTHERWISE NOTED.
15. ALL CONDUIT FOR ALL EQUIPMENT, INCLUDING EQUIPMENT FURNISHED BY OTHERS, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
16. ALL CONDUIT, WHERE LEAVING ELECTRICAL EQUIPMENT TO GO UNDERGROUND, MUST BE ANCHORED TO THE FOUNDATION W/6" STAND-OFF BRACKETS TO ALLOW FOR CLEARANCE FOR FOOTINGS AND WALL STUDS ON THE WALLS IN THE BUILDING. ALL RGS CONDUIT AND ELBOWS USED UNDERGROUND WILL BE WRAPPED WITH AN APPROVED PIPE WRAP. (TYP. FOR ALL BUILDINGS)



PANEL SCHEDULE											
CKT. NO.	AMPS	POLE	DESCRIPTION	WATTS	LOAD		WATTS	DESCRIPTION	POLE	AMPS	CKT. NO.
					A	B					
01	80	2	FLYGHT CLEAN WATER 7 1/2 HP PUMP CONTROL PANEL	4800	40	17	2040	GORMAN RUPP SLUDGE PUMP 3 HP	2	35	02
03	-	-		4800	40	17	2040				04
05				0		4	480	DYNABLEND POLYMER FEED SYSTEM	1	20	06
07			SPACE	0			0	HEAT TAPE (NOT USED)			08
09		1	HEAT TAPE (NOT USED)	0			0				10
11		1		0		8.3	996	FRENCH DRAIN SUMP PUMP	1		12
13				0			0				14
15				0		14	1680	LIGHTING / REC	1		16
17		2	MICROSCREEN DRAW PUMP	996	8.3	4.1	492	HEATER			18
19				0			0				20
TOTAL AMPS PER PHASE				=	88	64	=	TOTAL AMPS PER PHASE	AVG AMPS		
TOTAL WATTS				10596			7728	TOTAL WATTS			76.4

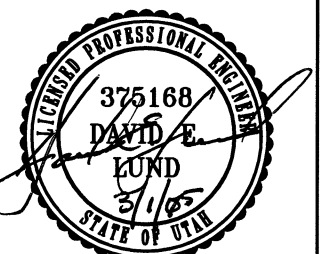
B PANEL SCHEDULE
E2 NO SCALE

A4 SINGLE LINE DIAGRAM
E2 NO SCALE



PREPARED BY:
SUNRISE ENGINEERING, INC.
25 EAST 500 NORTH
FILLMORE, UTAH 84631
TEL. (435) 743-6151
FAX (435) 743-7900

UTAH DIVISION OF
WILDLIFE
RESOURCES
LOA HATCHERY
WASTE STATION
CLARIFIER DESIGN
2004



1	2/28/05	REVISED PER ADDEND. 1
MARK	DATE	DESCRIPTION

ISSUE TYPE: 95%

ISSUE DATE: October 17, 2001

DFCM PROJECT NO: 04218520
SEI PROJECT NO: 01642
CAD DWG FILE: Loa Hatchery G01-03
DRAWN BY: JSS
CHK'D BY: DEL
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GENERAL ELECTRICAL
REQUIREMENTS &
ELECTRICAL POWER
DISTRIBUTION

E2